

JOHN T. CUNNINGHAM MEMORIAL BRIDGE
Old State Route 13 spanning the Cumberland River
Clarksville
Montgomery County
Tennessee

HAER NO. TN-21

HAER
TENN,
63-CLKSV,
5-

PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
NATIONAL PARK SERVICE
Department of the Interior
Southeast Region
Atlanta, Georgia 30303

HISTORIC AMERICAN ENGINEERING RECORD

HAER
TENN,
63-CLKSV,
5-

John T. Cunningham Memorial Bridge

HAER No. TN-21

Location: Spanning the Cumberland River on Old State Route 13
Clarksville ~~Montgomery~~, Montgomery County, Tennessee

Date of Construction: 1922-1925

Builder/Designer: Tennessee State Highway Department

Present Owner: Jointly owned by:

City of Clarksville
City Hall
Clarksville, Tennessee

and

Montgomery County Government
Clarksville, Tennessee

Present Use: Vehicular bridge

Significance: The Cunningham Bridge is an example of the K-truss,
one of only two known to exist in Tennessee. The
Cunningham Bridge also is historically significant as
one of the first bridges built by the Tennessee State
Highway Department. It was also the first major
federal aid bridge project in Tennessee.

Historian: Martha Carver
Tennessee Department of Transportation
August 1985

Edited and
Transmitted by: Jean P. Yearby, HAER, 1987

The Cunningham Bridge, a 1922-25 through (high) steel truss bridge is located southwest of Clarksville in central Montgomery County. Although located on the edge of Clarksville, the fifth largest city in Tennessee, the bridge site itself is in a somewhat rural/residential area. The east end contains a viaduct over the flood plain and is adjacent to a city park. The west end terminates at a heavily wooded hillside on which is located the c. 1830 National Register property, Riverview. The bridge derives its significance from its engineering merits as an example of the relatively uncommon K-truss and from its role in the history of the Tennessee State Highway Department.

Building a bridge over the river in Clarksville was a major local event that had been promoted since the 1890s. Efforts for a new bridge led to the appointment of a committee in 1916 to investigate a new bridge at certain ferry crossings. By 1919, the State Highway Department (SHD) agreed to design and build the bridge at the site of the Old Gaiser's Ferry, with the county paying one-third of the total cost and providing the right-of-way.

By 1921, the county committee reported that all plans, specifications, and preliminary work had been completed. This committee described the bridge thus:

This bridge is to be one of the latest designs of modern structures and will be one of the largest undertakings in the State of Tennessee.¹

After approval of the plans by the War Department and the Federal Bureau of Public Roads, the county let the bridge work in 1922 in three contracts: the piers and approaches, the three main trusses, and the dirt fills at the end of the approaches.

Four bids were received for the work involved in the first phase, the substructure and concrete approaches, on July 14, 1922. The SHD's estimate was \$212,608.94 for this aspect of the project. The bids received were from Foster and Creighton of Nashville (\$220,261.19), Gould Contracting Company of Nashville (\$196,891.76), the Henley Construction Company of Louisville, Indiana (\$199,654.45), and the Union Bridge and Construction Company of Kansas City (\$254,242.45). The Gould Company's bid, as low bid, was selected.

Four bids for the work involved in the second phase, the three truss spans, were received on September 14, 1922. These bids were from the Gould Contracting Company of Nashville (\$88,904.97), the Nashville Bridge Company of Nashville (\$88,118.79), the Penn Bridge Company of Beaver Falls, Pennsylvania (\$98,299.53) and the Virginia Bridge and Iron Company of Memphis (\$91,219.04). As low bidder, the Nashville Bridge Company received the contract.² (There is no indication as to who received the contract for the third phase for dirt fill at the end of the approaches).

The bridge was finally finished in 1925 for a cost of about \$700,000.³ At the request of the Federation of Women's Clubs of Clarksville, a committee from the county court was appointed in 1926 to select a name for the bridge. It was decided to name the bridge, the John T. Cunningham Memorial Bridge. Cunningham's family had been notable businessmen in Clarksville since the early 1880s. Cunningham himself was a local politician who served as a state representative from 1905 until 1909 and as a Speaker of the Tennessee State Legislature from 1907 to 1909. He was also Judge of the Criminal Court and Judge of the County Court from 1918 until 1945.

Although the Cunningham Bridge was a major local concern, its primary historical significance is in its associations with the development of Tennessee's State Highway Department (SHD). In Tennessee, the SHD was formed in 1915. Although some federal money came into the State after the 1916 Federal Aid Road Act, it was not until after the SHD was reorganized in 1923 as the Department of Highways and Public Works that large sums of federal money resulted in a massive bridge building effort from 1927 until World War II. However, in the fledgling days of the SHD (roughly from 1915 to 1925), very few State bridge projects with or without federal funds were built. This is one of the early bridges constructed by the SHD and the first major Federal-Aid Project (No. 16) built in Tennessee.

The Cunningham Bridge also derives some significance from its engineering merits. First, its composition as well as its date of construction reflects the transitional role from county leadership to state leadership in bridge building. The Cunningham Bridge is a heavy, riveted Pratt derivation, while many contemporary county bridges were still lightweight, pin connected structures. Yet, those bridges erected after 1925 by the SHD are uniform in width, composition of members, and truss types. Even though far from similar to county bridges, the appearance of the Cunningham Bridge is also different from the post-1925 SHD bridges - the railing is different, it is much narrower, and the truss type (K-truss and a variation of the Warren truss) were not commonly used after the 1925 by the Tennessee State Highway Department.

However, the primary engineering significance of the bridge is related to the rarity of its main truss, the K-truss. This truss type was used for a short time in the early twentieth century. This truss type was not often used and relatively few examples remain. (In Tennessee, only two K-trusses have been inventoried.)

The Cunningham Bridge contains nineteen spans and is 1400.7 feet in length. The three river spans are riveted through steel truss spans. The main channel span is a 282.5 foot K-truss. Each flanking truss span is a modified Warren with polygonal top chord. On the western end of the bridge are three concrete arch girder spans, each 47.0 feet long. On the eastern end of the bridge are

thirteen concrete deck girder spans, each 47.0 feet long. The substructure is concrete. The composition of some members vary, but the descriptions below are generally true. The top chords and end posts are channels with lacing underneath and are connected with cover plates. The bottom chords are channels with lacing top and bottom. The posts are channels. The diagonals are small channels with lacing, and the counters are angles with battens. The curb-to-curb width is 18.0 feet, and the out-to-out width is 21.3 feet. The minimum vertical clearance is 14.0 feet. The K-truss is 42.0 feet at its tallest point and each flanking truss is 30 feet in height at its tallest point. On each truss, the height at the hip vertical 22.0 feet. Each truss span contains a lattice railing; the girder spans contain a spindle concrete railing. The only known alterations to the bridge occurred in 1961 when the portal bracing was raised. Overall, the bridge retains a high degree of integrity.

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- 1 The information for this and other material in this report was acquired from the Montgomery County Court Minutes available at the State Archives. See Roll 49, Volume 35, pp. 190, 247; Roll 88, volume 1, p. 66; Roll 88, volume 2, pp. 209, 441-449, 569; Roll 89, volume 3, pp. 36, 92, 110, 123, 203, 223, 284, and 296.
 - 2 Tennessee Highways and Public Works (Volume II, Number 4, October 1922), p. 23. However, Nashville Bridge Company contract #4137 indicates the bid was \$89,952.67 and that work was finished on September 30, 1925.
 - 3 Ursula Smith Beach, Along the Warito (Nashville: McQuiddy Press, 1964), p. 325.



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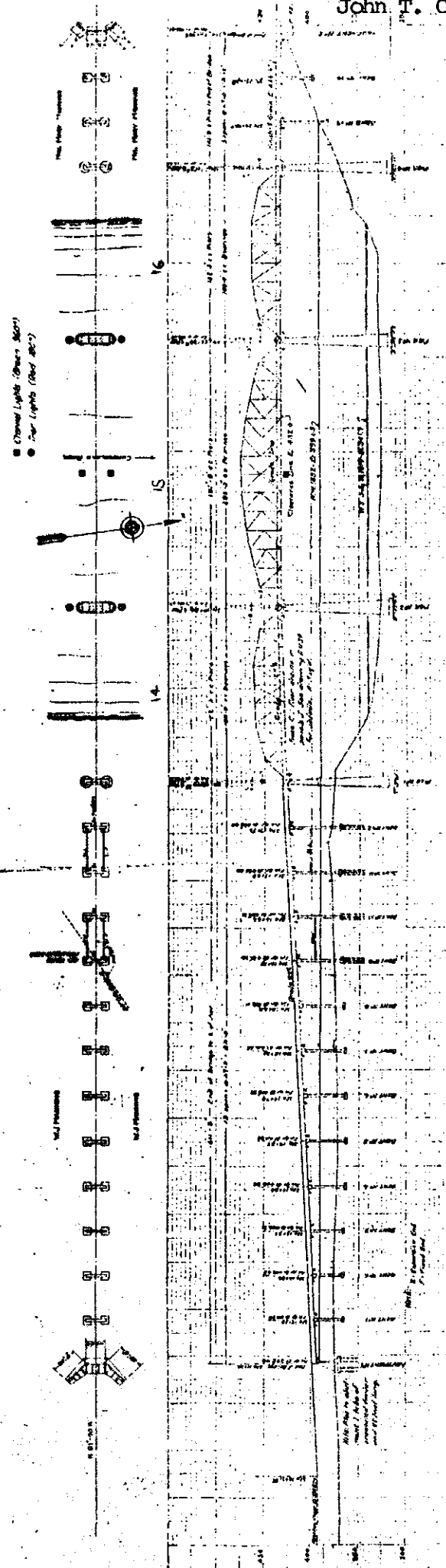
CONNINGHAM BRIDGE OVER THE CUMBERLAND
RIVER - CLARKSVILLE, MONTGOMERY COUNTY

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STATE OF TENNESSEE
 DEPARTMENT OF HIGHWAYS
 NASHVILLE
PLAN AND PROFILE
 BRIDGE OVER CUMBERLAND RIVER
 NEAR
 CLARKESVILLE, MONTGOMERY CO.
 1934

TABLE OF ESTIMATED QUANTITIES

ITEM	EXCAVATION		CONCRETE		STEEL		CURB	
	CU YD	CU YD	CU YD	CU YD	POUNDS	POUNDS	CU YD	CU YD
1. APPROACH	100	100	100	100	100	100	100	100
2. MAIN SPAN	200	200	200	200	200	200	200	200
3. TOTAL	300	300	300	300	300	300	300	300
4. TOTAL	300	300	300	300	300	300	300	300
5. TOTAL	300	300	300	300	300	300	300	300
6. TOTAL	300	300	300	300	300	300	300	300
7. TOTAL	300	300	300	300	300	300	300	300
8. TOTAL	300	300	300	300	300	300	300	300
9. TOTAL	300	300	300	300	300	300	300	300
10. TOTAL	300	300	300	300	300	300	300	300
11. TOTAL	300	300	300	300	300	300	300	300
12. TOTAL	300	300	300	300	300	300	300	300
13. TOTAL	300	300	300	300	300	300	300	300
14. TOTAL	300	300	300	300	300	300	300	300
15. TOTAL	300	300	300	300	300	300	300	300
16. TOTAL	300	300	300	300	300	300	300	300
17. TOTAL	300	300	300	300	300	300	300	300
18. TOTAL	300	300	300	300	300	300	300	300
19. TOTAL	300	300	300	300	300	300	300	300
20. TOTAL	300	300	300	300	300	300	300	300
21. TOTAL	300	300	300	300	300	300	300	300
22. TOTAL	300	300	300	300	300	300	300	300
23. TOTAL	300	300	300	300	300	300	300	300
24. TOTAL	300	300	300	300	300	300	300	300
25. TOTAL	300	300	300	300	300	300	300	300
26. TOTAL	300	300	300	300	300	300	300	300
27. TOTAL	300	300	300	300	300	300	300	300
28. TOTAL	300	300	300	300	300	300	300	300
29. TOTAL	300	300	300	300	300	300	300	300
30. TOTAL	300	300	300	300	300	300	300	300
31. TOTAL	300	300	300	300	300	300	300	300
32. TOTAL	300	300	300	300	300	300	300	300
33. TOTAL	300	300	300	300	300	300	300	300
34. TOTAL	300	300	300	300	300	300	300	300
35. TOTAL	300	300	300	300	300	300	300	300
36. TOTAL	300	300	300	300	300	300	300	300
37. TOTAL	300	300	300	300	300	300	300	300
38. TOTAL	300	300	300	300	300	300	300	300
39. TOTAL	300	300	300	300	300	300	300	300
40. TOTAL	300	300	300	300	300	300	300	300
41. TOTAL	300	300	300	300	300	300	300	300
42. TOTAL	300	300	300	300	300	300	300	300
43. TOTAL	300	300	300	300	300	300	300	300
44. TOTAL	300	300	300	300	300	300	300	300
45. TOTAL	300	300	300	300	300	300	300	300
46. TOTAL	300	300	300	300	300	300	300	300
47. TOTAL	300	300	300	300	300	300	300	300
48. TOTAL	300	300	300	300	300	300	300	300
49. TOTAL	300	300	300	300	300	300	300	300
50. TOTAL	300	300	300	300	300	300	300	300
51. TOTAL	300	300	300	300	300	300	300	300
52. TOTAL	300	300	300	300	300	300	300	300
53. TOTAL	300	300	300	300	300	300	300	300
54. TOTAL	300	300	300	300	300	300	300	300
55. TOTAL	300	300	300	300	300	300	300	300
56. TOTAL	300	300	300	300	300	300	300	300
57. TOTAL	300	300	300	300	300	300	300	300
58. TOTAL	300	300	300	300	300	300	300	300
59. TOTAL	300	300	300	300	300	300	300	300
60. TOTAL	300	300	300	300	300	300	300	300
61. TOTAL	300	300	300	300	300	300	300	300
62. TOTAL	300	300	300	300	300	300	300	300
63. TOTAL	300	300	300	300	300	300	300	300
64. TOTAL	300	300	300	300	300	300	300	300
65. TOTAL	300	300	300	300	300	300	300	300
66. TOTAL	300	300	300	300	300	300	300	300
67. TOTAL	300	300	300	300	300	300	300	300
68. TOTAL	300	300	300	300	300	300	300	300
69. TOTAL	300	300	300	300	300	300	300	300
70. TOTAL	300	300	300	300	300	300	300	300
71. TOTAL	300	300	300	300	300	300	300	300
72. TOTAL	300	300	300	300	300	300	300	300
73. TOTAL	300	300	300	300	300	300	300	300
74. TOTAL	300	300	300	300	300	300	300	300
75. TOTAL	300	300	300	300	300	300	300	300
76. TOTAL	300	300	300	300	300	300	300	300
77. TOTAL	300	300	300	300	300	300	300	300
78. TOTAL	300	300	300	300	300	300	300	300
79. TOTAL	300	300	300	300	300	300	300	300
80. TOTAL	300	300	300	300	300	300	300	300
81. TOTAL	300	300	300	300	300	300	300	300
82. TOTAL	300	300	300	300	300	300	300	300
83. TOTAL	300	300	300	300	300	300	300	300
84. TOTAL	300	300	300	300	300	300	300	300
85. TOTAL	300	300	300	300	300	300	300	300
86. TOTAL	300	300	300	300	300	300	300	300
87. TOTAL	300	300	300	300	300	300	300	300
88. TOTAL	300	300	300	300	300	300	300	300
89. TOTAL	300	300	300	300	300	300	300	300
90. TOTAL	300	300	300	300	300	300	300	300
91. TOTAL	300	300	300	300	300	300	300	300
92. TOTAL	300	300	300	300	300	300	300	300
93. TOTAL	300	300	300	300	300	300	300	300
94. TOTAL	300	300	300	300	300	300	300	300
95. TOTAL	300	300	300	300	300	300	300	300
96. TOTAL	300	300	300	300	300	300	300	300
97. TOTAL	300	300	300	300	300	300	300	300
98. TOTAL	300	300	300	300	300	300	300	300
99. TOTAL	300	300	300	300	300	300	300	300
100. TOTAL	300	300	300	300	300	300	300	300



John T. Cunningham Memorial Bridge
 HAER NO. TN-21 (Page 7)

STATE OF TENNESSEE
 DEPARTMENT OF HIGHWAYS
 NASHVILLE
PLAN AND PROFILE
 BRIDGE OVER CUMBERLAND RIVER
 NEAR
 CLARKESVILLE, MONTGOMERY CO.
 1934

BRIDGE NO. 14
 BRIDGE NO. 15
 BRIDGE NO. 16

Channel Light (Span 14)
 Pier Light (Span 14)
 Pier Light (Span 15)

CLARKESVILLE, MONTGOMERY CO., TENN.

DETAILS PIERS 1 AND 4
CONCRETE HAND-RAIL

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

BRIDGE OVER CUMBERLAND RIVER
CLARKSVILLE, MONTGOMERY CO.

SEE
PLAN 243

SECTION 243
PIERS 1 AND 4

SECTION 243
PIERS 1 AND 4

SECTION 243
PIERS 1 AND 4

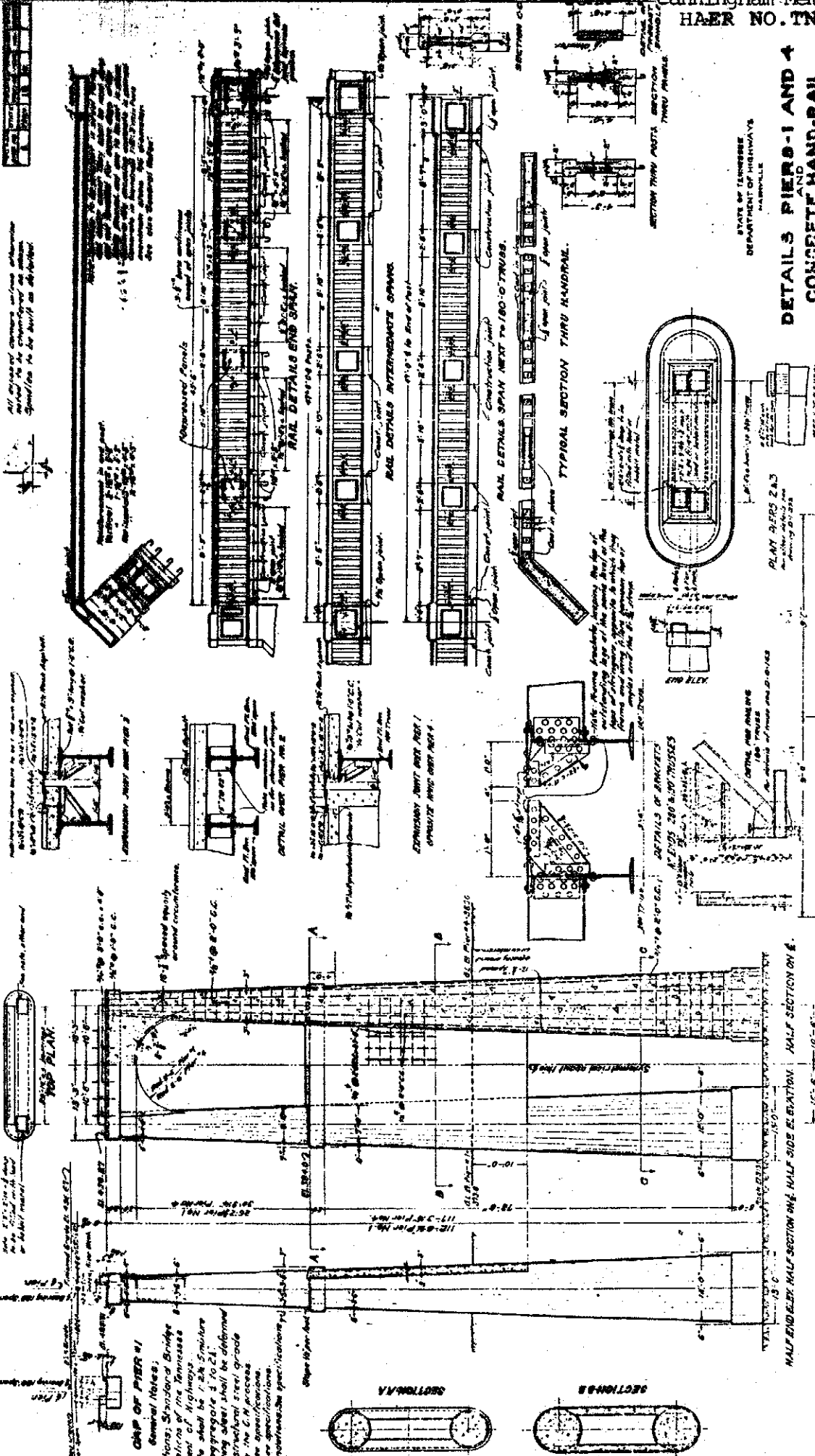
SECTION 243
PIERS 1 AND 4

SECTION 243
PIERS 1 AND 4

SECTION 243
PIERS 1 AND 4

SECTION 243
PIERS 1 AND 4

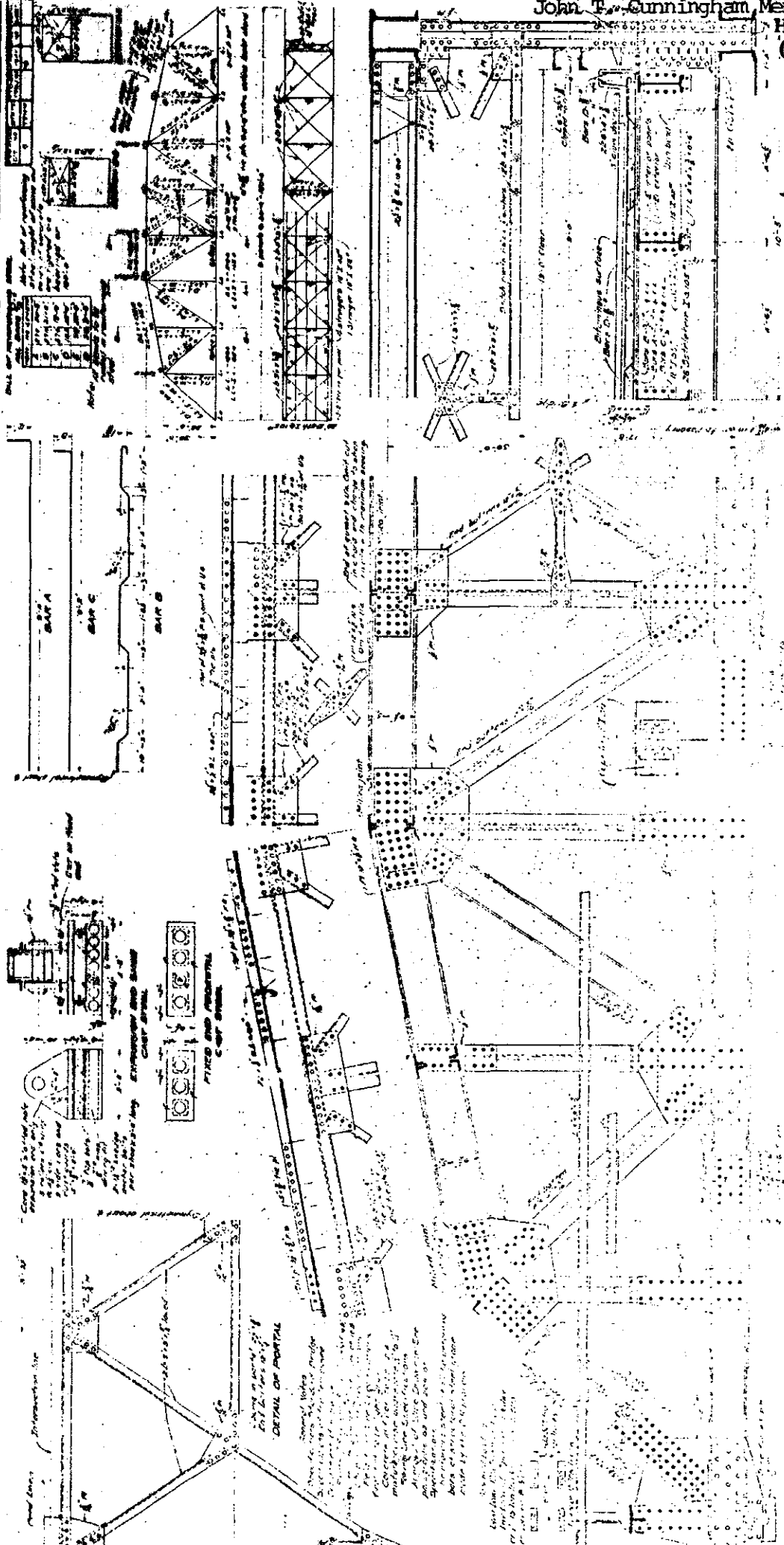
SECTION 243
PIERS 1 AND 4



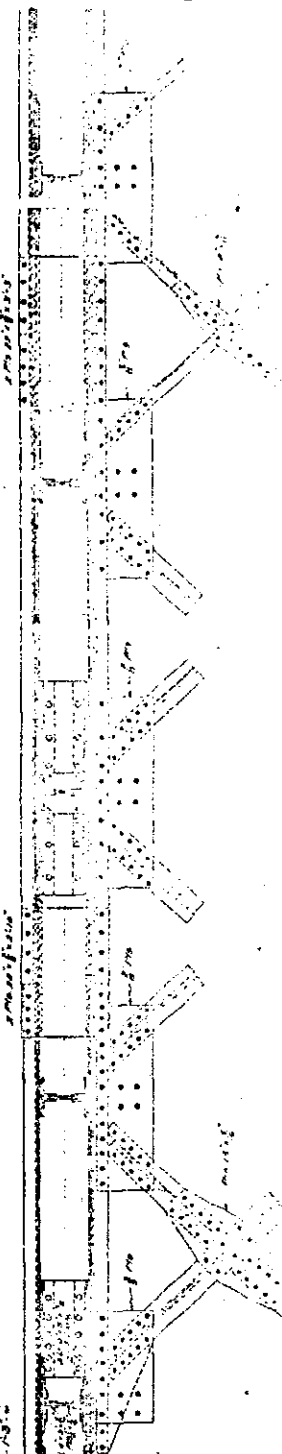
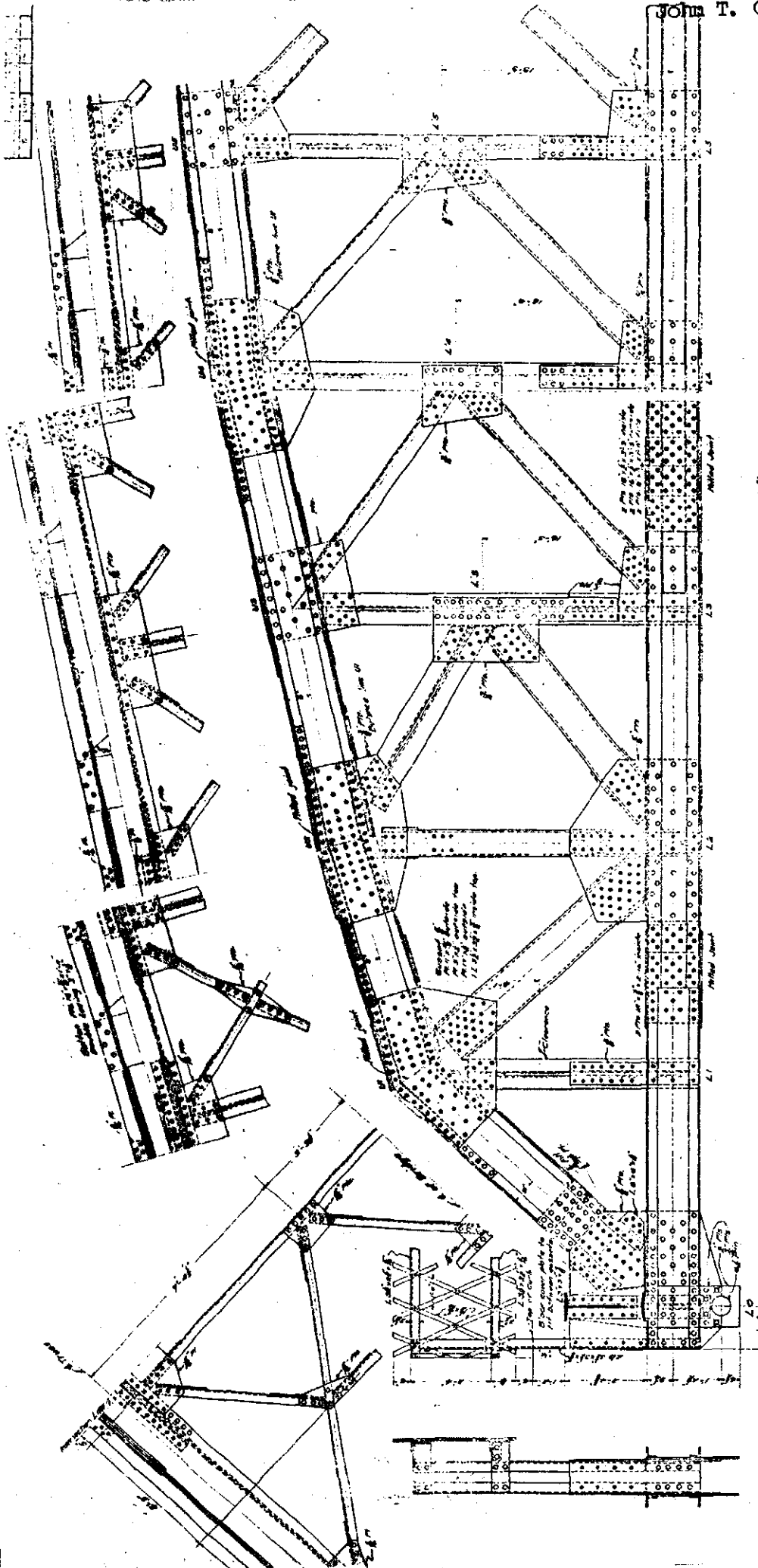
DETAILS PIERS 1 & 4

STATE OF TENNESSEE
 DEPARTMENT OF HIGHWAYS
 DIVISION OF BRIDGES

ESTIMATED QUANTITIES
 2024.00 cu yd
 2024.00 cu yd
 2024.00 cu yd



FIVE THIRTY FIVE
CENTRAL HIGH SCHOOL
STATION W
SAYRE ROAD, SHELTON, CT
06484-0950

[illegible]

